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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/155,796	11/30/1998	TOMOHISA YAMAGUCHI	925-142P	9143

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BIRCH STEWART KOLASCH & BIRCH  
P O BOX 747  
FALLS CHURCH, VA 22040

EXAMINER
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BUI, KIEU OANH T

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/155,796

Applicant(s)

YAMAGUCHI, TOMOHISA

Examiner

KIEU-OANH T. BUI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19,20,27-31,33-37 and 39-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19,20,27-31,33-37 and 39-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 19-20, 27-31, 33-37, and 39-46 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

3. Claims 19-20, 27-28, 30-31, 33-37, and 39-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US Patent 5,479,303) in view of O'Callaghan et al. (US Patent 5,477,263).

Regarding claims 19 and 20, these limitations are met as Suzuki discloses a video data distribution (Fig. 3), and a data management unit 160 in controlling the transmission and delivering a load of video data, wherein the data in a form of frames and the steps of extracting video frames from server or database 153 based on the request of a plurality of users at user terminals 151 in playing back video frames in either a normal playback data speed and/or fast forward/fast reverse playback data speed (as shown in Fig. 4, and col. 4/line 23-58), particularly, when the playback with fast speed, the transmission is determined in a manner as frame data is being thinned, and without the fast playback is performed, the transmission is determined in a

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manner as frame data is not thinned, i.e., refer to Fig. 4 and the formula of frame thinning with  $n$ ,  $n+1$ ,  $n+2$  and etc. and col. 5/lines 8-38, since based on this formula, frame skipping will be occurred; therefore, the total number of frames for transmission is surely less than or thinner than that of the required standard or normal playback (see further in col. 2/lines 36-51 for the transmission rate is less or thin for fast forward playback and fast reverse playback than for the normal playback). Furthermore, as also noted in col. 4/line 59 to col. 5/line 8, as the user requests for frames or mode changes, the system provides the response interactively (see col. 3/lines 1-29, Fig. 5, and col. 26-46).

Applicants argue that Suzuki does not offer the determination step for the transmission loads; however, O'Callaghan teaches the same technique of introducing a video on demand system that adapts quickly to change as the user switches and/or changes programs from sources at times to times, and either playing back at different rates as normal rates, fast playback, fast reverse or fast forward etc, the system can provide multiple program transport streams to users (Fig. 4) and the payload data carrying within transport streams are monitored and transmitted accordingly (Fig. 5 for programs with its corresponding frame rates, and col. 4/line 35-to col. 5/line 20, and col. 8/lines 23-51 for video data payload is decoded accordingly from the transport stream transmitted from the source-headend). In addition, Fig. 1 and col. 2/line 12 to col. 3/line 7 for the background details as the headend system including a program map and a program decoder for determining the transport/transmission level of the system according to a load of video data from sources to the users at the transport multiplexer-later shown in Fig. 8).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Suzuki's with O'Callaghan's teaching technique of further including the determination of a transmission level in accordance with a load of video data distribution system in order to provide the user a quick change/adaptation to transmission loads for displaying video data properly when playing back the video data at the user's device as noted.

Regarding claims 27, 34, 36, and 37, Suzuki and O'Callaghan discloses a video data distribution device for transmitting video data comprising a plurality of frame data to a video playback (i.e., client can receive and replay video data), comprising: a data extractor for extracting frame data from the video data; and a transmitter for transmitting the frame data extracted by the data extractor (Suzuki, Figs. 3 & 4; and O'Callaghan, Fig. 1 for stream and transport stream including frames and Fig. 8 for the headend system with transport mux 308 as transmitter for transmitting video frames data to the user). In addition, Suzuki further teaches the user can send their request by controlling the rate of delivering video, for example, either fast forward (or quick forwarding), or fast reverse of the distributing video signals and the frame thinning process, for instance, when the playback with fast speed, the transmission is determined in a manner as frame data is being thinned, and without the fast playback is performed, the transmission is determined in a manner as frame data is not thinned, i.e., refer to Fig. 4 and the formula of frame thinning with  $n$ ,  $n+1$ ,  $n+2$  and etc. and col. 5/lines 8-38, since based on this formula, frame skipping will be occurred; therefore, the total number of frames for transmission is surely less than or thinner than that of the required standard or normal playback (see further in col. 2/lines 36-51 for the transmission rate is less or thin for fast forward playback and fast reverse playback than for the normal playback).

Suzuki does not show the overall system with the data extractor and the transmitter as taught by O'Callaghan (as disclosed in claims 19-20 and above). Therefore, it would have been obvious to one of ordinary skill in the art to modify Suzuki's system with O'Callaghan's disclosure as noted in order to offer an enhanced video distribution system that effectively provide the user the requested video data with the use of a transport multiplexer for transmitting multiple streams to users at different rates per the user's requests; or in other words, by monitoring the transmission loads, the system provides corresponding transmission level per the user's requests.

As for claims 28, 35 and 39, O'Callagahn further discloses the steps of "wherein the video data is MPEG data" (Fig. 7, and col. 8/lines 23-51).

As for claim 30, Suzuki inherently discloses the step of "wherein the MPEG data comprises I pictures and P pictures, and the data extractor generates the MPEG data with P picture deleted therefrom in accordance with a request message from the video data playback device" since when the load is high as the reference value reaches the maximum, the system will transmit only a part of the frame data, i.e., P picture deleted therefrom, if the reference value is lower, all of the frame data such as all the I and P frames can be transmitted (Fig. 5 and col. 5/line 50 to col. 6/line 46). As disclosed earlier, the request message from the video data playback device is inputted from the user/client as taught by Suzuki.

As for claim 31, Suzuki inherently discloses the step of "wherein the extractor extracts a reduced number of frames of the frame data", i.e., when the load is high as the reference value reaches the maximum, the system will transmit only a part of the frame data, in other words, a reduced number of frames of the frame data is transmitted, if the reference value is lower, all of

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the frame data such as all the I and P frames can be transmitted (Fig. 5 and col. 5/line 50 to col. 6/line 46).

As for claims 33 and 40, in further view of claim 27, O'Callaghan further teaches "wherein the data extractor changes a time stamp for the fast playback, wherein the timestamp is included in header data of the MPEG data" (Fig. 9 and col. 9/line 40-col. 10/line 5).

As for claims 41-42, these claims for "a computer program for playing back video data, the video data comprising a plurality of frame data and timestamps" are rejected for the reasons given in the scope of system claims 27-28, 31 and 33 in view of Suzuki and O'Callaghan as already disclosed above.

As for claims 43-46, O'Callaghan teaches these claims for "further includes a transmission level determining unit for determining a transmission level in accordance with a load of the video data" (Fig. 1 and col. 2/line 12 to col. 3/line 7 as the headend system including a program map and a program decoder for determining the transport/transmission level of the system according to a load of video data from sources to the users at the transport multiplexer).

4. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U.S. Patent 5,479,303) in view of O'Callaghan (US Patent 5,477,263) and further in view of Dixit (U.S. Patent No. 5,260,783).

As for claims 29, in further view of claim 27 above, Suzuki does not further show the step of "the data extractor generates MPEG data by deleting a B picture in accordance with a request message from the video data playback device"; however, Dixit shows that intra-frame compressed data I can be detected for extracting by an intra-frame encoder with B pictures

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involved (Dixit, Fig. 2 and col. 2/lines 4-8). Therefore, it would have been obvious to modify Ito's technique with Dixit's more details involving B pictures deletion within MPEG data in order to flexibility generating MPEG data based on the load condition processed by the load processing device as taught by O'Callaghan above. As disclosed earlier, the request message from the video data playback device is inputted from the user/client as taught by Suzuki.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

O'Callaghan (5,594,492), Shintani, and Ueda (PTO-892 attached) disclose systems related to provide video data distribution and method of control.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to PTO New Central Fax number:**

**(571) 273-8300, (for Technology Center 2600 only)**

*Hand deliveries must be made to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kieu-Oanh Bui whose telephone number is (571) 272-7291. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:30 PM, with alternate Fridays off.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in dark ink, appearing to read 'K. Bui', with a long horizontal flourish extending to the right.

Kieu-Oanh Bui  
Primary Examiner  
Art Unit 2611

KB

Jan. 26, 2006